

Appl. No. 10/535,296
Corrected Amendment to claims in Response
to Office action of 7 September 2007

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Amendments to the Claims:

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A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method of improving the output uniformity of a display device (1), comprising

the following steps:

[-] detecting a first emitted brightness of at least one pixel (5) of the display device via an external detection system that is substantially independent of the display device (1);

[-] by means of the detected first brightness, determining the non-uniformity of an output of a driver circuit (3) being connected with said the at least one pixel based on the first emitted brightness (5);

[-] based on said first detected brightness, generating a calibration factor for the at least one pixel based on the non-uniformity (5), to be used to modify the output of the driver circuit (3), in order to improve the uniformity.

2. (Currently amended) A method according to The method of claim 1, wherein said the display device is a self light emitting display device.

3. (Currently amended) A method according to The method of claim 1 or 2, wherein said the display device is an organic light emitting diode based display device.

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4. (Currently amended) A method according to any one of the claims 1-3, further comprising the steps of The method of claim 1, including:

[[[-]]] after detecting said first emitted brightness, adjusting an average display brightness,

and thereafter detecting a second emitted brightness of said the at least one pixel (5), and

[[[-]]] based on said first and second detected brightnesses, generating a the calibration factor based on the first and second detected brightnesses for the at least one pixel (5), to be used to modify the output of the driver circuit (3), in order to improve uniformity.

5. (Currently amended) A method according to any one of the claims 1-4 The method of claim 1, wherein the step of detecting the emitted brightness of at least one pixel (5) is performed by means of the external detection system includes an external imaging system (2).

6. (Currently amended) A method according to any one of the claims 1-6 The method of claim 1, wherein said the driver circuit (3) is one of a pixel driver circuit or a data driver circuit.

7. (Currently amended) A method according to any one of the claims 1-6 The method of claim 1, wherein said the display device (1) is an active matrix polymer or organic light emitting diode display device.

8. (Currently amended) A method according to The method of claim 7, wherein the step of detecting the emitted brightness of at least one pixel (5) comprises the step of includes individually detecting the emitted brightness for each of a plurality of pixels.

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9. (Currently amended) A method according to claim 7 or 8 The method of claim 7, further comprising the step of includes aligning, in one of a column or a row of pixels, all transistors of all pixels in a direction, being the direction of a laser beam during a laser recrystallisation step during the fabrication of said the transistors.

10. (Currently amended) A method according to any one of the claims 1-6 The method of claim 1, wherein said the display device (1) is a passive matrix polymer or organic light emitting diode display device.

11. (Currently amended) A method according to any one of the claims 1-7 and 9-10 The method of claim 1, wherein the step of detecting the emitted brightness of at least one pixel (5) comprises the step of includes jointly measuring the an emitted brightness of a group of pixels, such as a column or a row of pixels, being commonly controlled by a common driving device.

12. (Currently amended) A method according to any one of the preceding claims, wherein said calibration factors are memorised in the driver circuit (3) by one of the methods: The method of claim 1, including storing the calibration factors in a memory device associated with the driver circuit, burning fuses on one of a transistor substrate or an additional driver integrated circuit, or laser trimming of one of a transistor substrate or an additional driver integrated circuit.

13. (Currently amended) A system for calibrating a display device (1), for improving the output uniformity of the same, comprising:
____ a unit for holding a display device (1) to be calibrated,
____ a detection system that is substantially independent of the display device and configured to an imaging system (2), being positioned so as to, when in use, detect emitted brightness from the entire display device surface of the display device (1), and

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a feedback system (6), for transmitting that is configured to communicate information based on the emitted brightness to the display device to facilitate improvement of output brightness uniformity by adjustment of one or more drivers of the display device regarding the emitted brightness back to the display device (1), the system being arranged to perform the method according to any one of the claims 1-12.

14. (Currently amended) A system according to claim 13, wherein said the display device (1) is a self light emitting display device, preferably an organic light emitting diode based display device.

15. (Currently amended) A self light emitting display device (1) for use with a system as defined in claim 13 that is configured to receive information based on an emitted brightness of one or more pixels of the display device from an external detector that is independent of the display device, and includes at least one component of at least one driver that is adjusted based on the information to improve an output brightness uniformity of the display device.

16. (Currently amended) A self light emitting display device (1) as defined in claim 15, wherein the display device comprises a plurality of light emitting pixels being arranged in a row and column structure, wherein either each column or each row of pixels being is connected with a data driver circuit, wherein each column or row comprises an additional non-light emitting pixel, incorporating includes a current measurement device, and a controller that is configured to for monitoring adjust an output of the data driver circuit based on a relative change over time of current detected by the current measurement device an output signal from said data driver.

17. (New) The method of claim 1, including burning fuses on a circuit associated with the driver circuit.

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18. (New) The method of claim 1, including laser trimming of one or more transistors associated with the driver circuit.
19. (New) The display device of claim 15, wherein the at least one component includes one or more fuses.
20. (New) The display device of claim 15, wherein the at least one component includes one or more transistors that are laser trimmed based on the information.